

TL 8000

System Components

Inlet Valve	¾" Brass Solenoid Valve
Inlet Filter	2.5" x 20" 5 micron Cartridge
Pressurization Pump	SS Vertical Multi-stage
Motor	¾" HP NEMA Motor
Motor (international 50 Hz)	1 ½" HP NEMA Motor
Membrane Housing (qty.)	(2) PVC
Primary Membrane (qty)	(4) Thin Film Composite 4.0 x 40" (85 ft ²)
Permeate Flush	½" SS. Flush Solenoid Valve
Recirculation Control	Pressure / Flow Regulating Valve
Drain Control	Fixed Orifice
Low Pressure Protection	15 psi Cut-off Switch
System Shut-off Control	N.O. Contact, Close to Shut-off
System Controller	Electronic Circuit Board
Frame	Painted Steel

Inlet Water Quality

Pressure	100 – 150 psi Dynamic Pressure
Temperature Range	35 – 90° F
pH Range	3 – 11 SU
Free Chlorine Cl ₂ (Max.)	0.05 mg/L
Hardness as CaCO ₃ (Max.)	<10 gpg (170 mg/L)
Silica (Max.)	10.0 mg/L
Iron (Max.)	<0.01 mg/L
Total Dissolved Solids, TDS (Max.)	<2,500 mg/L

Operating Specs

Daily Production (77° F, 500 mg/L Feed Water)	8,000 gallons/day
Recovery Ratio	50%
Reject Rate (NaCl / CaCO ₃)	97% / 99%
Normal Operating Pressure	125 psi
Dimensions (width x depth x height)	22 x 20 x 54"
Weight (Operating / Shipping)	480 / 380 lbs.

Connections

Inlet	0.75" FNPT
Permeate	0.5" Tube
Drain Connection	0.5" Tube
Everclean™ Rinse	External Pressurized Source
Power	120 VAC / 60 Hz, 8 Amps
.....	220 VAC / 50 Hz, 10.5 Amps

Production Chart

(To Atmospheric Tank)

Temp.	500 mg/L	1,000 mg/L	1,500 mg/L	2,000 mg/L	2,500 mg/L
50° F	4,640 gpd	4,240 gpd	3,840 gpd	3,520 gpd	3,200 gpd
60° F	5,600 gpd	5,120 gpd	4,720 gpd	4,240 gpd	3,760 gpd
70° F	6,800 gpd	6,160 gpd	5,600 gpd	5,040 gpd	4,480 gpd
80° F	8,000 gpd	7,440 gpd	6,560 gpd	5,920 gpd	5,200 gpd

(To Pressurized Storage Tank 30/50)

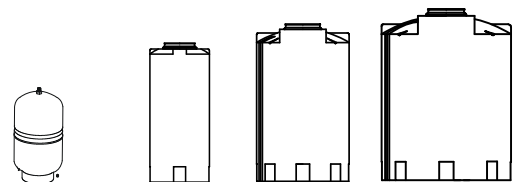
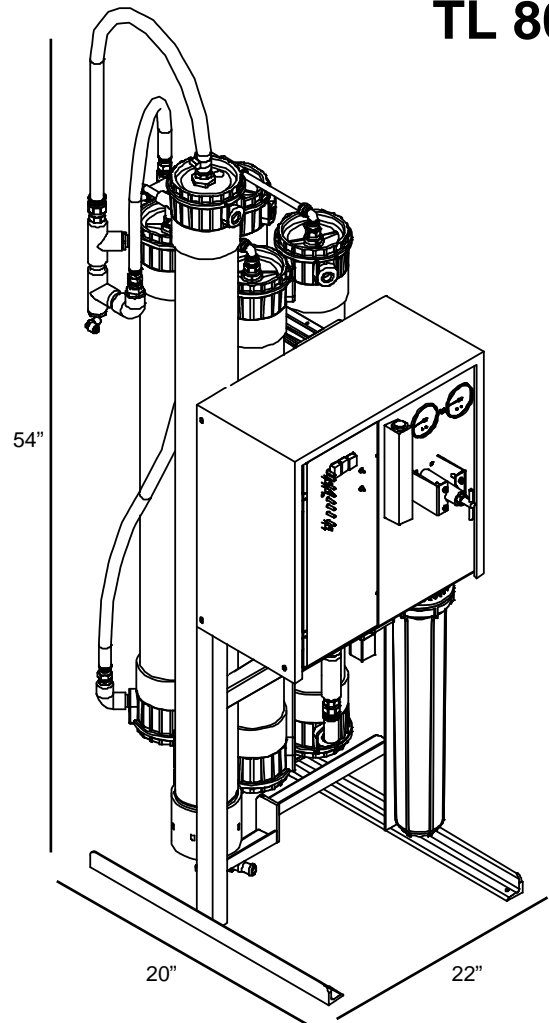
Temp.	500 mg/L	1,000 mg/L	1,500 mg/L	2,000 mg/L	2,500 mg/L
50° F	2,640 gpd	2,320 gpd	2,080 gpd	1,840 gpd	1,520 gpd
60° F	3,200 gpd	2,800 gpd	2,480 gpd	2,160 gpd	1,920 gpd
70° F	3,920 gpd	3,440 gpd	2,960 gpd	2,640 gpd	2,160 gpd
80° F	4,720 gpd	4,000 gpd	3,520 gpd	2,960 gpd	2,480 gpd

Storage Tank Options

Tank Description	80 gallon	300 gallon	550 gallon	1,000 gallon
Tank Part Number	7483	7495	7496	7498
Tank Height	58"	80"	83"	84"
Tank Footprint	24" DIA	35" DIA	48"	64"
Material	Lined Steel	HDPE	HDPE	HDPE

Part Numbers

TL 8000, 220 VAC, 60 Hz	7510B
TL 8000, 220 VAC, 50 Hz	8515A



Operating Profile

The system shall use reverse osmosis technology to reduce the total dissolved solids (TDS) level in water by a minimum of 95%. System shall contain its own pressurization system to optimize the production of water through the membrane. System operating pressure shall be between 100 and 125 psi. System functionally shall include monitoring and a regulating device for adjusting the system pressure. The system shall contain an automatic inlet valve, which closes when system is shutdown. A low pressure switch will be used to protect pump from decavitation damage during low pressure occurrences. On/Off cycling is based on an operating pressure switch set to a 30/50 psi setting. The unit shall incorporate a high pressure relief valve set to 100 psi.

Pump design

Units shall use a stainless steel, multi-stage vertical submersible pump. Pump wet end shall be constructed of stainless steel. Pump motor shall be ¾ HP (60 Hz) or 1 ½ HP (50 Hz) and NEMA rated.

Membranes and Housings

System shall use four thin film composite membranes in a spiral wound configuration. Each membrane size shall be 4.0" x 40" with an area of 85 ft². Each Membrane and housing shall be rated for a working pressure to 250 psi. Housings shall be mounted in a vertical configuration

Plumbing Configuration

System shall incorporate a reject recovery design. System shall provide for an adjustable internally recirculated flow rate. Reject flow shall be controlled by a pressure regulating valve. During a shut down mode, the feed side of the membrane shall be flushed with at least 5 housing volumes of permeate water. Flush cycle shall be automatic with each shut-down.

Skid

System shall be mounted on a corrosion resistant painted steel frame. Unit shall not weight more that 380 pounds.